

REMARKS

The Examiner is thanked for the due consideration given the application. The specification has been amended to insert headings and to improve the language.

Claims 1, 3-7, 9-17, 19, 20 and 22 are pending in the application. Claims 2, 8, 18 and 21 are canceled by this amendment. The amendments to claim 1 generally incorporate subject matter from canceled claims 2, 8 and 18. Claims 3-7, 9-17, 19, 20 have been amended to improve their language in a non-narrowing fashion. New claim 22 corresponds to claim 1 and is directed to filling an airbag gas generator.

A Terminal Disclaimer of co-pending Application No. 10/583,131 is attached to this paper.

No new matter is believed to be added to the application by this amendment.

Rejection Under 35 USC §102(b)

Claims 1-7, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20 and 21 have been rejected under 35 USC §102(b) as being anticipated by KESTEN (DE 10107895 A1). This rejection is respectfully traversed.

Claim 8 has been canceled and its subject matter has been incorporated into claim 1. Claim 8 was free of this rejection over KESTEN, and the incorporation of claim 8 into claim 1 renders claim 1 instantly not anticipated by KESTEN.

Claims depending upon claim 1 are not anticipated by KESTEN for at least the above reason.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

Rejections Under 35 USC §103(a)

Claim 8 (now incorporated into claim 1) has been rejected under 35 USC §103(a) as being unpatentable over KESTEN in view of BASTIAN (U.S. Patent 5,900,538). Claim 17 has been rejected under 35 USC §103(a) as being unpatentable over KESTEN in view of LAK (U.S. Patent 5,644,920). These rejections are respectfully traversed.

The present invention pertains to a method for filling a pressure vessel of an air bag that is illustrated, by way of example, in Figure 1 of the application, which is reproduced below.

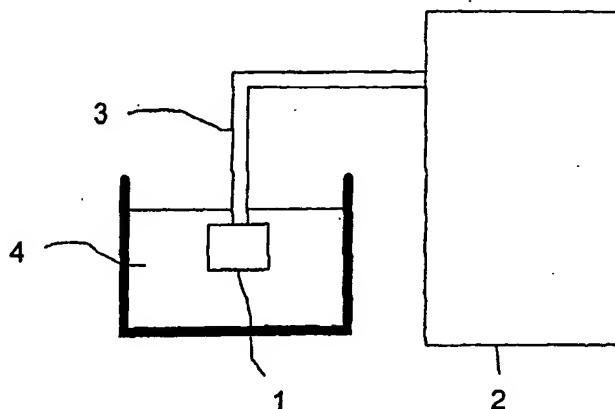


Figure 1 shows a pressure vessel 1 which is to be filled, a compressed-gas source 2, e.g., a compressed-gas

cylinder (filling pressure of 300 bar) containing helium or hydrogen with shut-off valve and pressure reducer, a gas connecting conduit 3 and a refrigeration bath 4 containing a cryogenically liquefied gas, such as liquid nitrogen, as refrigerant. The pressure vessel 1 is, for example, part of a gas generator of an airbag system or a gas canister. Also, the filling quantity is determined manometrically

Claim 1 of the present invention recites: "a pressure of more than 300 bar is produced in the filled and closed pressure vessel by warming the gas or gas mixture," and "determination and monitoring of a filling quantity during the filling operation are effected manometrically."

KESTEN (as evidenced by U.S. Publication 2008/0016884) pertains to a method for filling pressure containers with gas. The Official Action refers to paragraphs 0002 and 0009 of KESTEN, which discuss filling a cooled pressure tank with gas and then warming to increase the internal pressure.

KESTEN fails to disclose manometric determination of filling quantity. The Official Action acknowledges this failure of KESTEN at page 5, lines 20-21.

The Official Action then refers to column 12, line 13 of BASTIAN, which states: "Actual pressure is measured by a manometric capsule". BASTIAN thus only teaches manometric pressure measurement.

BASTIAN fails to teach or suggest manometric determination of fill quantity. Nonetheless, the Official Action asserts that manometric determination of fill quantity would be obvious to one of ordinary skill in the art.

However, the production of airbag gas generators for vehicles requires a mass production at very low prices. At the same time, the system should contain an exactly defined reproducible quantity of gas and should be stable for decades.

All this was not necessary in the cited prior art, and a skilled person would fail to recognize which methods and conditions can be used for the high pressure filling of an airbag gas generator with an exactly reproducible amount of gas, especially by determining and monitoring of the filling quantity during the filling operation manometrically (monitoring the pressure), which nevertheless requires to keep all gases to be filled into the pressure vessel above the boiling temperature to avoid any measurement errors.

It should also be noted that an airbag gas generator must release the gas in case of an accident within a reproducible very short period of time, which requires certain valves (again stable for decades) that may require a filling and closing at lower pressure than the final pressure in the vessel. This can be done with the present method as the vessel is closed before warming.

There is no teaching or suggestion in the prior art, how to solve all these problems at the same time.

One of ordinary skill and creativity would thus fail to produce claim 1 of the present invention from a knowledge of KESTEN and BASTIAN. A *prima facie* case of unpatentability has thus not been made. Claims depending upon claim 1 are patentable for at least the above reasons.

Regarding claim 17, the Official Action turns to LAK for teachings pertaining to a pressurized refrigerant used for cooling, or the temperature is set, controlled or regulated during cooling by the action of pressure. However these teachings of LAK fail to address the deficiencies of KESTEN and BASTIAN in rendering claim 1 (from which claim 17 depends) of the present invention unpatentable. A *prima facie* case of unpatentability over claim 17 has thus not been made.

These rejections are believed to be overcome, and withdrawal thereof is respectfully requested.

Double Patenting Over Application No. 10/583,131

Claims 1, 3, 5, 6, 8, 11, 12, and 18 have been provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 5, 6, 8, 11, 12, and 15 of co-pending Application No. 10/583,131. This rejection is respectfully traversed.

A Terminal Disclaimer for co-pending Application No. 10/583,131 is being filed concurrently with this paper, thereby rendering this rejection moot.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

Double Patenting Rejection Over Application No. 10/471,926

Claims 1, 4, 5, 6, 15, 16, 18, 19, and 21 have been provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 4, 6, and 7 of co-pending Application No. 10/471,926 in view of claims 2 and 15 of co-pending Application No. 10/583,131. This rejection is respectfully traversed.

Claim 8 has been canceled, and its subject matter has been incorporated into claim 1. Claim 8 was free of this double patenting rejection. Additionally, the Terminal Disclaimer of co-pending Application No. 10/583,131 is being filed concurrently to this paper thereby removing this application as being usable as a basis of a double patenting rejection.

As a result, there is now no need to file a Terminal Disclaimer of co-pending Application No. 10/471,926 for at least the above reasons.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.